

Claims

What is claimed is:

1. A method of distributing to a user a specific electronic image comprising a representation of a specific person from among a collection of electronic images containing representations of many persons, the method comprising the steps of:

performing facial recognition analysis on each electronic image in the image collection by which a facial identifier is determined for each face represented within each electronic image;

storing each electronic image in association with the facial identifier of each person represented within the electronic image;

obtaining a reference facial identifier from a source electronic image in which the specific person is represented;

selecting the specific electronic image for distribution on the basis of the similarity of the reference facial identifier to a facial identifier associated with the specific electronic image in conjunction with additional information that can be derived from the collection of electronic images.

2. The method of claim 1, wherein the additional information comprises the association of the specific electronic image for distribution with a facial identifier of a second person, wherein the second person's facial identifier is associated with more than one electronic image in the collection with which the specific person's facial identifier is also associated.

3. The method of claim 1, wherein the additional information comprises the association of the specific electronic image for distribution with a facial identifier of a second person, wherein the specific person's facial identifier is associated with a second electronic image in the collection with which a third person's facial identifier is also associated, and in which the second and third person's facial identifiers are associated with a third electronic image in the collection.

4. The method of claim 1, wherein the additional information comprises characteristics of a temporary feature of the specific person, wherein the characteristics of the feature can be determined from the distribution image.

5. The method of claim 4, wherein the temporary feature is selected from the group consisting of colors of clothes, presence of eyeglasses, colors of eyeglasses, hair color, makeup color, jewelry, hat shape, hat color, and facial hair distribution.

6. The method of claim 1, wherein the additional information comprises membership of the facial identifier within a first cluster of facial identifiers that has been formed using cluster analysis on facial identifiers from electronic images within the image collection.

7. The method of claim 6, wherein the first cluster of facial identifiers is modified by joining the first cluster and a second cluster using manual input from the user following visual inspection of at least one image from each of the first and second clusters.

8. The method of claim 6, wherein the first cluster of facial identifiers is sorted on the basis of age, and wherein additional facial identifiers are added to the cluster on the basis of their similarity to a predetermined

number of facial identifiers selected from the group consisting of the oldest images, most recent images, or most dissimilar images.

9. The method of claim 8, wherein the predetermined number of facial identifiers is less than 5.

10. The method of claim 1, wherein the source electronic image is not within the collection.

11. The method of claim 10, wherein the source electronic image is transmitted via the Internet.

12. The method of claim 1, wherein the source electronic image is within the collection, and wherein the user manually chooses the specific person representation from the source image following visual inspection of the image.

13. The method of claim 12, wherein images from the collection are sorted for presentation to the user on the basis of the facial identifiers associated with the images.

14. The method of claim 13, wherein images with the largest number of facial identifiers that the user has not previously been presented are presented to the user, wherein the user can efficiently locate the specific person in the collection of images by inspecting only a subset of the images.

15. The method of claim 1, wherein images for distribution are selected on the basis of the number of facial identifiers associated with the images.

16. The method of claim 1, wherein the step of selecting utilizes a similarity metric for relating the likelihood of match of two different facial identifiers, wherein the value of the similarity metric relative to a predetermined value determines whether the facial identifiers are considered to match.

17. The method of claim 16, wherein the additional information alters the similarity metric between the reference facial identifier and a facial identifier associated with the distribution image.

18. The method of claim 1, wherein the reference facial identifier is determined from the analysis of multiple images comprising facial representations of the specific person.

19. The method of claim 18, wherein the one of the multiple images was previously selected from the image collection in a step of selecting.

20. A method of indexing images in an electronic image collection, comprising:
performing facial recognition analysis on each electronic image in the image collection, by which a facial identifier is determined for each face represented within each electronic image; and
storing each electronic image in association with the facial identifier of each person represented within the electronic image.

21. The method of claim 20, wherein retrieval of a specific image from the electronic image collection is performed by reference to a facial identifier associated with the specific image.